

Ramirez, Javier

From: Ramirez, Javier
Sent: Tuesday, July 19, 2016 1:14 PM
To: Ramirez, Javier
Subject: RE: WACS ID 41193 - Qtr 2 2016 Water Balance and Waste Tire Reports for Southeast County Landfill

From: Pelley, Cindy [<mailto:PelleyCA@HillsboroughCounty.ORG>]
Sent: Thursday, July 14, 2016 10:36 AM
To: SWD_Waste (Shared Mailbox) <SWD_Waste@dep.state.fl.us>
Cc: Morgan, Steve <Steve.Morgan@dep.state.fl.us>; Ruiz, Larry <RuizLE@HillsboroughCounty.ORG>; Cope, Ronald <Cope@epchc.org>; Byer, Kimberly <ByerK@hillsboroughcounty.org>; bclark@scsengineers.com
Subject: WACS ID 41193 - Qtr 2 2016 Water Balance and Waste Tire Reports for Southeast County Landfill

Mr. Morgan:

The Quarterly Water Balance and Waste Tire Reports for Southeast County Landfill are attached (WACS ID 41193).

Please advise should you have any questions concerning the information provided.

Thank you,

Cindy A. Pelley

General Manager II

Solid Waste Management Division
Public Works Department

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July 11, 2016

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County Attorney

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Public Works

PO Box 1110
Tampa, FL 33601-1110
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Mr. Steve Morgan
Solid Waste Section
Florida Department of Environmental Protection, Southwest District
13051 N. Telecom Pkwy
Temple Terrace, Florida 33637

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Mr. Morgan:

In accordance with Specific Condition No. C.12.d of Permit No. 35435-023-SO/01, the Solid Waste Management Division (SWMD) is submitting the Quarterly Leachate Water Balance summary for the Southeast County Landfill for the quarter ending June 30, 2016.

The data is being submitted as separate monthly reports for April, May, and June 2016. The attached reports include the leachate level in Pump Station B (PS-B). This quarter PS-B normal operation level of 24 inches was not achieved due to settlement of the sump within the landfill.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Larry E. Ruiz, SC
Manager Landfill Operations
Solid Waste Management Division

LER/cp
Attachment
xc: Bruce Clark, SCS
Ron Cope, EPC



Public Works

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DATE: May 12, 2016

TO: Larry E. Ruiz, Manager Landfill Operations, Solid Waste Management Division

FROM: Cindy A. Pelley, Landfill Supervisor, Solid Waste Management Division

SUBJECT: Leachate Water Balance Report Forms for April 2016
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2016 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 2.50 inches of rainfall at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 1.9 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month effluent was not stored in Pond B.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. This month the PS-B normal operation level of 24 inches was not achieved due to settlement of the sump within the landfill. The average recorded depth of leachate in the PS-B sump was 33.1 inches.

Leachate Pumped to MLPS from Phases I-VI (Column VI)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. The average daily amount of leachate pumped from PS-A was 75,606 gallons. A total of 2,268,165 gallons of leachate was pumped this month.

Leachate Pumped from Sections 7-8 LDS (Column VII)

Column VII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. This month a total of 1,679 gallons of leachate was removed from the leak detection system of Sections 7-8.

Leachate Pumped to MLPS from Sections 7-8 (Column VIII)

Column VIII presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column VIII). This month a total of 102,931 gallons of leachate was pumped from Sections 7-8.

Leachate Pumped to LTRF from the MLPS (Column IX)

Column IX presents the total quantity of leachate pumped to the LTRF from Phases I-VI and Sections 7-8. This month a total of 2,371,096 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column X)

Column X presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. A total of 195 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XI)

Column XI presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month leachate was not removed from the leak detection system.

Leachate in 575,000-Gallon Tank (Column XII)

Column XII presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 392,000 gallons of leachate was stored in the tank.

Effluent in 575,000-Gallon Tank (Column XIII)

Column XIII presents the daily amount of effluent, in gallons, stored in the 575,000-gallon effluent holding tank at the LTRF. The amount of effluent stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 220,800 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 743,800 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XV)

Column XV presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,607,452 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the landfill. This month leachate was not used for dust control.

Pond A Storage (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 57,300 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated. This month effluent was not stored in Pond B.

Effluent Sprayed at Pond B (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XXIV. This month effluent was not sprayed in Pond B.

Effluent Irrigation (Column XX)

Column XX presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases I-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 649,650 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXI)

Column XXI presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. This month effluent was not sprayed as dust control.

Total Effluent Hauled (Column XXII)

Column XXII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month effluent was not hauled off site.

Total Evaporation (Column XXIII)

Column XXIII presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. There total evaporation estimated for this month was 519,700 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 2,377,062 gallons. Total outflow quantity from the LTRF was 2,351,252 gallons. The change in storage for the month increased by 25,810 gallons.

Please advise should you have any questions concerning the information provided.

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM
APRIL 2016
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV | XVI | XVII | XVIII | XIX | XX | XXI | XXII | XXIII |
|---------------|-------------------|-----------------------------------|-----------------------------------|---|---|--|--|--|---|---|--|--|---|---------------------------------------|---|--------------------------------|--------------------------------|--|----------------------------------|---|---------------------------------------|--------------------------------|
| Day | Rainfall (in.) | Depth in Pond A (ft.) | Depth in Pond B (ft.) | Estimated Depth at PS-B (in.) | Leachate Pumped to MLPS from Phases I-VI (gal.) | Leachate Pumped from Sections 7-8 LDS (gal.) | Leachate Pumped to MLPS from Sections 7-8 (gal.) | Leachate Pumped to LTRF from MPLS (gal.) | Leachate Pumped to LTRF from Section 9 (gal.) | Leachate Pumped from Section 9 LDS (gal.) | Leachate in 575K Tank (gal.) | Effluent in 575K Tank (gal.) | Leachate Treated at LTRF (gal.) | Total Leachate Hauled (gal.) | Leachate Dust Control (Sprayed) (gal.) | Pond A Storage (gal.) | Pond B Storage (gal.) | Effluent Sprayed Pond B (gal.) | Effluent Irrigation (gal.) | Effluent Dust Control (Sprayed) (gal.) | Total Effluent Hauled (gal.) | Total Evaporation (gal.) |
| 1 | 0.00 | 1.5 | 0.0 | 32.8 | 74,599 | 0 | 3,839 | 78,438 | 3 | 0 | 389,000 | 192,000 | 27,300 | 77,587 | 0 | 40,000 | 0 | 0 | 48,160 | 0 | 0 | 38,500 |
| 2 | 1.57 | 1.2 | 0.0 | 33.8 | 75,976 | 0 | 3,215 | 79,191 | 6 | 0 | 381,000 | 199,000 | 27,300 | 0 | 0 | 32,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0.00 | 1.6 | 0.0 | 33.9 | 74,613 | 0 | 2,450 | 77,062 | 5 | 0 | 426,000 | 212,000 | 27,200 | 0 | 0 | 44,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 0.00 | 2.0 | 0.0 | 34.0 | 74,613 | 0 | 2,450 | 77,062 | 5 | 0 | 470,000 | 225,000 | 27,100 | 63,966 | 0 | 61,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0.00 | 2.3 | 0.0 | 33.6 | 71,000 | 0 | 4,011 | 75,011 | 5 | 0 | 439,000 | 230,000 | 26,300 | 77,708 | 0 | 74,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 0.30 | 3.0 | 0.0 | 33.9 | 75,200 | 0 | 2,050 | 77,250 | 6 | 0 | 410,000 | 225,000 | 23,500 | 77,652 | 0 | 108,000 | 0 | 0 | 63,975 | 0 | 0 | 51,200 |
| 7 | 0.14 | 2.8 | 0.0 | 34.3 | 71,500 | 0 | 4,341 | 75,841 | 3 | 0 | 386,000 | 204,000 | 25,000 | 63,385 | 0 | 98,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | 0.00 | 3.3 | 0.0 | 34.1 | 80,643 | 0 | 3,286 | 83,929 | 6 | 0 | 374,000 | 209,000 | 26,400 | 63,439 | 0 | 123,000 | 0 | 0 | 58,098 | 0 | 0 | 46,500 |
| 9 | 0.00 | 2.0 | 0.0 | 33.8 | 84,102 | 0 | 2,780 | 86,882 | 8 | 0 | 381,000 | 230,000 | 25,300 | 0 | 0 | 61,000 | 0 | 0 | 40,426 | 0 | 0 | 32,300 |
| 10 | 0.00 | 2.0 | 0.0 | 33.7 | 82,878 | 0 | 3,394 | 86,272 | 7 | 0 | 433,000 | 236,000 | 25,300 | 0 | 0 | 61,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | 0.00 | 2.0 | 0.0 | 33.5 | 82,878 | 0 | 3,394 | 86,272 | 7 | 0 | 485,000 | 242,000 | 25,300 | 77,993 | 0 | 61,000 | 0 | 0 | 65,416 | 0 | 0 | 52,300 |
| 12 | 0.00 | 1.0 | 0.0 | 33.4 | 83,027 | 0 | 3,250 | 86,277 | 9 | 0 | 463,000 | 240,000 | 21,600 | 77,860 | 0 | 24,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | 0.00 | 1.7 | 0.0 | 34.2 | 82,098 | 0 | 3,528 | 85,626 | 4 | 0 | 437,000 | 235,000 | 28,900 | 77,799 | 0 | 48,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | 0.00 | 2.3 | 0.0 | 33.2 | 80,075 | 0 | 3,285 | 83,360 | 6 | 0 | 405,000 | 235,000 | 29,700 | 70,594 | 0 | 74,000 | 0 | 0 | 77,844 | 0 | 0 | 62,300 |
| 15 | 0.00 | 1.2 | 0.0 | 33.3 | 81,554 | 0 | 3,796 | 85,350 | 4 | 0 | 394,000 | 238,000 | 31,200 | 63,520 | 0 | 32,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | 0.00 | 1.4 | 0.0 | 34.2 | 81,943 | 0 | 2,791 | 84,734 | 7 | 0 | 410,000 | 238,000 | 3,400 | 0 | 0 | 36,000 | 0 | 0 | 34,874 | 0 | 0 | 27,900 |
| 17 | 0.00 | 1.3 | 0.0 | 33.9 | 47,380 | 0 | 2,375 | 49,755 | 8 | 0 | 453,000 | 227,000 | 3,400 | 0 | 0 | 32,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | 0.00 | 1.1 | 0.0 | 33.6 | 47,380 | 0 | 2,375 | 49,755 | 8 | 0 | 497,000 | 216,000 | 3,400 | 42,963 | 0 | 28,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | 0.00 | 1.6 | 0.0 | 34.1 | 76,444 | 0 | 5,262 | 81,706 | 10 | 0 | 468,000 | 216,000 | 21,200 | 108,003 | 0 | 44,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 0.00 | 2.2 | 0.0 | 34.2 | 81,558 | 0 | 4,165 | 85,723 | 7 | 0 | 437,000 | 216,000 | 31,800 | 93,560 | 0 | 70,000 | 0 | 0 | 73,412 | 0 | 0 | 58,700 |
| 21 | 0.00 | 1.3 | 0.0 | 34.4 | 84,642 | 231 | 3,711 | 88,353 | 5 | 0 | 384,000 | 216,000 | 32,400 | 100,778 | 0 | 36,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | 0.01 | 2.0 | 0.0 | 34.5 | 87,574 | 300 | 5,190 | 92,764 | 7 | 0 | 336,000 | 216,000 | 35,700 | 100,383 | 0 | 61,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | 0.00 | 1.7 | 0.0 | 34.5 | 83,644 | 304 | 3,202 | 86,846 | 8 | 0 | 300,000 | 216,000 | 30,900 | 42,297 | 0 | 48,000 | 0 | 0 | 38,535 | 0 | 0 | 30,800 |
| 24 | 0.00 | 2.3 | 0.0 | 34.3 | 81,911 | 289 | 3,849 | 85,760 | 10 | 0 | 334,000 | 216,000 | 30,900 | 0 | 0 | 74,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | 0.00 | 2.8 | 0.0 | 34.0 | 81,911 | 289 | 3,849 | 85,760 | 10 | 0 | 367,000 | 216,000 | 30,900 | 71,435 | 0 | 98,000 | 0 | 0 | 51,211 | 0 | 0 | 41,000 |
| 26 | 0.00 | 2.4 | 0.0 | 33.2 | 90,469 | 60 | 0 | 90,469 | 7 | 0 | 343,000 | 216,000 | 32,300 | 78,679 | 0 | 79,000 | 0 | 0 | 50,243 | 0 | 0 | 40,200 |
| 27 | 0.00 | 1.6 | 0.0 | 33.3 | 76,546 | 70 | 5,863 | 82,409 | 13 | 0 | 333,000 | 216,000 | 13,300 | 49,483 | 0 | 44,000 | 0 | 0 | 47,456 | 0 | 0 | 38,000 |
| 28 | 0.48 | 1.2 | 0.0 | 33.4 | 86,146 | 65 | 2,676 | 88,822 | 7 | 0 | 324,000 | 216,000 | 34,500 | 64,129 | 0 | 32,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 | 0.00 | 2.0 | 0.0 | 12.2 | 16,990 | 0 | 3,321 | 20,311 | 5 | 0 | 245,000 | 216,000 | 35,600 | 64,239 | 0 | 61,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0.00 | 1.3 | 0.0 | 34.6 | 68,875 | 71 | 5,234 | 74,109 | 2 | 0 | 257,000 | 216,000 | 6,700 | 0 | 0 | 36,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2.50 | | | | 2,268,165 | 1,679 | 102,931 | 2,371,096 | 195 | 0 | | | 743,800 | 1,607,452 | 0 | | 0 | 0 | 649,650 | 0 | 0 | 519,700 |
| Daily Average | | 1.9 | 0.0 | 33.1 | 75,606 | 56 | 3,431 | 79,037 | 7 | 0 | 392,000 | 220,800 | | | 0 | 57,300 | 0 | | | | | |
| Mo. Average | | | | | | | | | | | | | | | 0 | | | | 21,700 | | | 17,320 |

projects\balance\2016\04-16bal.xls (DS 4/30/16)

- Notes:
1. NR = No Records, NA = Not Available.
 2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
 3. Daily average is calculated by dividing the total by the actual days measured in the month.
 4. Monthly average calculated by dividing the total by the number of days of the month.
 5. Column II, Trace is less than 0.01 inches and is not included in total.
 6. Columns III and IV, field measured at staff gauges.
 7. Column V, PPS-B sensor reading plus 9 inches.
 8. Columns VIII & IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
 9. Column XIII and XIV, calculated from depth in 575,000 gal. tanks.
 10. Columns VI-XII, XV-XVII, and XX-XXIII, quantities from flow meters.
 11. Column XXIV includes 80% of the daily values from Columns XVII, XXI, and XXII plus 5% of the daily values from column XX.

**TABLE 2. FIELD DATA ENTRY FORM
APRIL 2016
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| A Day | B Rainfall (in.) | C Flow Meter Pump Sta. A (gal.) | D Reading PS-B (in.) | E Section 9 Pump 1 (gal.) | F Section 9 Pump 2 (gal.) | G Section 9 LDS (gal.) | H Sections 7-8 Pump (gal.) | I Sections 7-8 LDS (gal.) | J Pond B Depth (ft.) | K Pond B Effluent Sprayed (gal) | L Pond A Depth (ft.) | M Effluent Spray Irrigation (gal.) | N Depth in 575K Tank Leachate (ft.) | O Depth in 575K Tank Effluent (ft.) | P Leachate Treated at LTRF (gal.) | Q Leachate Hauled | | S Leachate Dust Control (Sprayed) (gal.) | T Effluent Hauled | | V Effluent Dust Control (Sprayed) (gal) |
|----------|------------------------|--|-------------------------------|------------------------------------|------------------------------------|---------------------------------|-------------------------------------|------------------------------------|-------------------------------|---|-------------------------------|--|---|---|---|----------------------|------------------|--|----------------------|------------------|---|
| | | | | | | | | | | | | | | | | Contractor (gal.) | County (gal.) | | Contractor (gal.) | County (gal.) | |
| | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.00 | 5,042,599 | 23.8 | 2,960,233 | 724,351 | 5,814,537 | 845,090 | 138,750 | 0.0 | 0.0 | 1.5 | 48,160 | 13.50 | 6.67 | 27,285 | 42,064 | 35,523 | 0 | 0 | 0 | 0 |
| 2 | 1.57 | 5,118,575 | 24.8 | 2,960,236 | 724,354 | 5,814,537 | 848,305 | 138,750 | 0.0 | 0.0 | 1.2 | 0 | 13.25 | 6.92 | 27,285 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0.00 | 5,193,188 | 24.9 | 2,960,239 | 724,357 | 5,814,537 | 850,755 | 138,750 | 0.0 | 0.0 | 1.6 | 0 | 14.79 | 7.38 | 27,192 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 0.00 | 5,267,800 | 25.0 | 2,960,241 | 724,359 | 5,814,537 | 853,204 | 138,750 | 0.0 | 0.0 | 2.0 | 0 | 16.33 | 7.83 | 27,101 | 28,092 | 35,874 | 0 | 0 | 0 | 0 |
| 5 | 0.00 | 5,338,800 | 24.6 | 2,960,244 | 724,361 | 5,814,537 | 857,215 | 138,750 | 0.0 | 0.0 | 2.3 | 0 | 15.25 | 8.00 | 26,294 | 42,119 | 35,589 | 0 | 0 | 0 | 0 |
| 6 | 0.30 | 5,414,000 | 24.9 | 2,960,245 | 724,366 | 5,814,537 | 859,265 | 138,750 | 0.0 | 0.0 | 3.0 | 63,975 | 14.25 | 7.83 | 23,548 | 42,106 | 35,546 | 0 | 0 | 0 | 0 |
| 7 | 0.14 | 5,485,500 | 25.3 | 2,960,247 | 724,367 | 5,814,537 | 863,606 | 138,750 | 0.0 | 0.0 | 2.8 | 0 | 13.42 | 7.08 | 25,003 | 42,072 | 21,313 | 0 | 0 | 0 | 0 |
| 8 | 0.00 | 5,566,143 | 25.1 | 2,960,253 | 724,367 | 5,814,537 | 866,892 | 138,750 | 0.0 | 0.0 | 3.3 | 58,098 | 13.00 | 7.25 | 26,410 | 42,131 | 21,308 | 0 | 0 | 0 | 0 |
| 9 | 0.00 | 5,650,245 | 24.8 | 2,960,253 | 724,375 | 5,814,537 | 869,672 | 138,750 | 0.0 | 0.0 | 2.0 | 40,426 | 13.25 | 8.00 | 25,263 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 0.00 | 5,733,123 | 24.7 | 2,960,258 | 724,377 | 5,814,537 | 873,066 | 138,750 | 0.0 | 0.0 | 2.0 | 0 | 15.04 | 8.21 | 25,263 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | 0.00 | 5,816,000 | 24.5 | 2,960,262 | 724,379 | 5,814,537 | 876,460 | 138,750 | 0.0 | 0.0 | 2.0 | 65,416 | 16.83 | 8.42 | 25,264 | 42,187 | 35,806 | 0 | 0 | 0 | 0 |
| 12 | 0.00 | 5,899,027 | 24.4 | 2,960,265 | 724,385 | 5,814,537 | 879,710 | 138,750 | 0.0 | 0.0 | 1.0 | 0 | 16.08 | 8.33 | 21,599 | 42,143 | 35,717 | 0 | 0 | 0 | 0 |
| 13 | 0.00 | 5,981,125 | 25.2 | 2,960,268 | 724,386 | 5,814,537 | 883,238 | 138,750 | 0.0 | 0.0 | 1.7 | 0 | 15.17 | 8.17 | 28,876 | 42,204 | 35,595 | 0 | 0 | 0 | 0 |
| 14 | 0.00 | 6,061,200 | 24.2 | 2,960,272 | 724,388 | 5,814,537 | 886,523 | 138,750 | 0.0 | 0.0 | 2.3 | 77,844 | 14.08 | 8.17 | 29,670 | 42,164 | 28,430 | 0 | 0 | 0 | 0 |
| 15 | 0.00 | 6,142,754 | 24.3 | 2,960,272 | 724,392 | 5,814,537 | 890,319 | 138,750 | 0.0 | 0.0 | 1.2 | 0 | 13.67 | 8.25 | 31,218 | 35,101 | 28,419 | 0 | 0 | 0 | 0 |
| 16 | 0.00 | 6,224,697 | 25.2 | 2,960,276 | 724,395 | 5,814,537 | 893,110 | 138,750 | 0.0 | 0.0 | 1.4 | 34,874 | 14.25 | 8.25 | 3,351 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 0.00 | 6,272,077 | 24.9 | 2,960,280 | 724,399 | 5,814,537 | 895,485 | 138,750 | 0.0 | 0.0 | 1.3 | 0 | 15.75 | 7.88 | 3,351 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | 0.00 | 6,319,456 | 24.6 | 2,960,284 | 724,402 | 5,814,537 | 897,860 | 138,750 | 0.0 | 0.0 | 1.1 | 0 | 17.25 | 7.50 | 3,353 | 14,084 | 28,879 | 0 | 0 | 0 | 0 |
| 19 | 0.00 | 6,395,900 | 25.1 | 2,960,291 | 724,405 | 5,814,537 | 903,122 | 138,750 | 0.0 | 0.0 | 1.6 | 0 | 16.25 | 7.50 | 21,208 | 72,191 | 35,812 | 0 | 0 | 0 | 0 |
| 20 | 0.00 | 6,477,458 | 25.2 | 2,960,294 | 724,409 | 5,814,537 | 907,287 | 138,750 | 0.0 | 0.0 | 2.2 | 73,412 | 15.17 | 7.50 | 31,775 | 72,200 | 21,360 | 0 | 0 | 0 | 0 |
| 21 | 0.00 | 6,562,100 | 25.4 | 2,960,296 | 724,412 | 5,814,537 | 910,998 | 138,981 | 0.0 | 0.0 | 1.3 | 0 | 13.33 | 7.50 | 32,443 | 72,077 | 28,701 | 0 | 0 | 0 | 0 |
| 22 | 0.01 | 6,649,674 | 25.5 | 2,960,300 | 724,415 | 5,814,537 | 916,188 | 139,281 | 0.0 | 0.0 | 2.0 | 0 | 11.67 | 7.50 | 35,714 | 72,657 | 27,726 | 0 | 0 | 0 | 0 |
| 23 | 0.00 | 6,733,318 | 25.5 | 2,960,305 | 724,418 | 5,814,537 | 919,390 | 139,585 | 0.0 | 0.0 | 1.7 | 38,535 | 10.42 | 7.50 | 30,892 | 42,297 | 0 | 0 | 0 | 0 | 0 |
| 24 | 0.00 | 6,815,229 | 25.3 | 2,960,311 | 724,422 | 5,814,537 | 923,239 | 139,874 | 0.0 | 0.0 | 2.3 | 0 | 11.59 | 7.50 | 30,892 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | 0.00 | 6,897,139 | 25.0 | 2,960,316 | 724,426 | 5,814,537 | 927,088 | 140,163 | 0.0 | 0.0 | 2.8 | 51,211 | 12.75 | 7.50 | 30,892 | 35,083 | 36,352 | 0 | 0 | 0 | 0 |
| 26 | 0.00 | 6,987,608 | 24.2 | 2,960,320 | 724,429 | 5,814,537 | 927,088 | 140,223 | 0.0 | 0.0 | 2.4 | 50,243 | 11.92 | 7.50 | 32,318 | 42,159 | 36,520 | 0 | 0 | 0 | 0 |
| 27 | 0.00 | 7,064,154 | 24.3 | 2,960,325 | 724,437 | 5,814,537 | 932,951 | 140,293 | 0.0 | 0.0 | 1.6 | 47,456 | 11.58 | 7.50 | 13,313 | 42,185 | 7,298 | 0 | 0 | 0 | 0 |
| 28 | 0.48 | 7,150,300 | 24.4 | 2,960,331 | 724,438 | 5,814,537 | 935,627 | 140,358 | 0.0 | 0.0 | 1.2 | 0 | 11.25 | 7.50 | 34,527 | 42,194 | 21,935 | 0 | 0 | 0 | 0 |
| 29 | 0.00 | 7,167,290 | 3.2 | 2,960,334 | 724,440 | 5,814,537 | 938,948 | 140,358 | 0.0 | 0.0 | 2.0 | 0 | 8.50 | 7.50 | 35,574 | 28,009 | 36,230 | 0 | 0 | 0 | 0 |
| 30 | 0.00 | 7,236,165 | 25.6 | 2,960,334 | 724,442 | 5,814,537 | 944,182 | 140,429 | 0.0 | 0.0 | 1.3 | 0 | 8.92 | 7.50 | 6,717 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | 2.50 | | | | | | | | | 0 | | 649,650 | | | 743,591 | 977,519 | 629,933 | 0 | 0 | 0 | 0 |

projects/balance/2016/04-16ba.xls (DS 4/30/16)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column B, trace is less than 0.01 inches.
5. Columns C, D, F, G, H, I, J, L, N, Q, R-V and W are quantities from flow meters.
6. Columns K and M measured from staff gages in each pond.

| Type of Cover | Phases I-VI acres | Sections 7-8 acres | Section 9 acres |
|---------------|----------------------|-----------------------|--------------------|
| Open | 5 | 0 | 0 |
| Intermediate | 134.4 | 19.3 | 15 |
| Final | 23 | 0 | 0 |
| Not Opened | 0 | 0 | 0 |

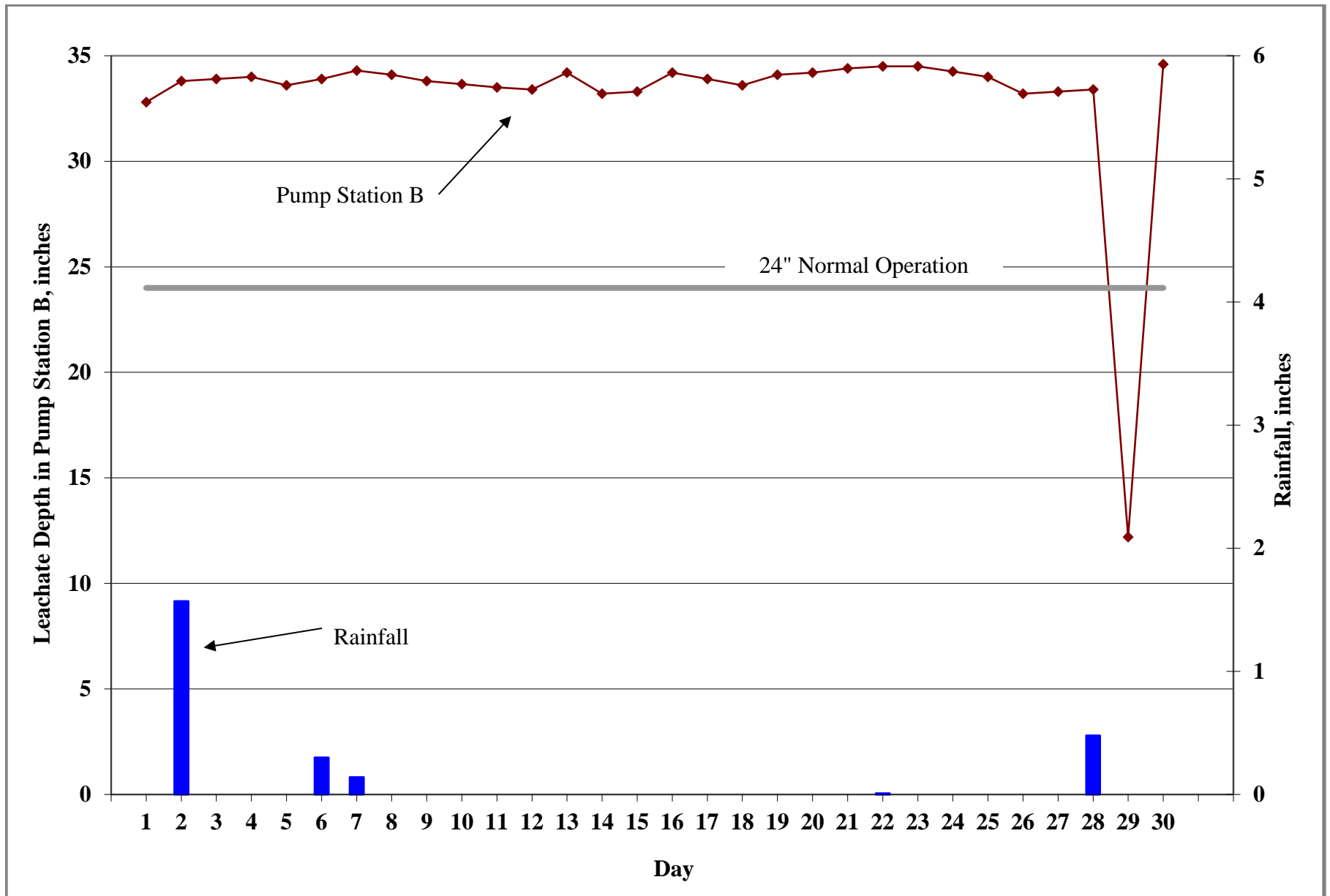


Figure 1. Leachate Levels in Pump Station B and Rainfall for April 2016.



Public Works

Board of County Commissioners

Kevin Beckner
Victor D. Crist
Ken Hagan
Al Higginbotham
Lesley "Les" Miller, Jr.
Sandra L. Murman
Stacy R. White

County Administrator Michael S. Merrill

County Administrator Executive Team Lucia E. Garsys Carl S. Harness Gregory S. Horwedel Ramin Kouzehkanani Liana Lopez Bonnie M. Wise

Interim Internal Auditor Peggy Caskey

County Attorney Chip Fletcher

Public Works
PO Box 1110
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Phone: (813) 272-5912
Fax: (813) 272-5811

DATE: June 17, 2016

TO: Larry E. Ruiz, Manager Landfill Operations, Solid Waste Management Division

FROM: Cindy A. Pelley, Landfill Supervisor, Solid Waste Management Division

SUBJECT: Leachate Water Balance Report Forms for May 2016
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2016 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 8.03 inches of rainfall at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 2.9 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of effluent stored in Pond B was 1.2.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. This month the PS-B normal operation level of 24 inches was not achieved due to settlement of the sump within the landfill. The average recorded depth of leachate in the PS-B sump was 33.7 inches.

Leachate Pumped to MLPS from Phases I-VI (Column VI)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. The average daily amount of leachate pumped from PS-A was 87,724 gallons. A total of 2,719,435 gallons of leachate was pumped this month.

Leachate Pumped from Sections 7-8 LDS (Column VII)

Column VII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. This month a total of 1,463 gallons of leachate was removed from the leak detection system of Sections 7-8.

Leachate Pumped to MLPS from Sections 7-8 (Column VIII)

Column VIII presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column VIII). This month a total of 53,694 gallons of leachate was pumped from Sections 7-8.

Leachate Pumped to LTRF from the MLPS (Column IX)

Column IX presents the total quantity of leachate pumped to the LTRF from Phases I-VI and Sections 7-8. This month a total of 2,773,129 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column X)

Column X presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. A total of 228 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XI)

Column XI presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month leachate was not removed from the leak detection system.

Leachate in 575,000-Gallon Tank (Column XII)

Column XII presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 433,500 gallons of leachate was stored in the tank.

Effluent in 575,000-Gallon Tank (Column XIII)

Column XIII presents the daily amount of effluent, in gallons, stored in the 575,000-gallon effluent holding tank at the LTRF. The amount of effluent stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 217,300 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 948,800 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XV)

Column XV presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,652,011 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the landfill. This month leachate was not used for dust control.

Pond A Storage (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 104,900 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated. This month a daily average of 39,100 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XXIV. This month effluent was not sprayed in Pond B.

Effluent Irrigation (Column XX)

Column XX presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases I-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 771,435 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXI)

Column XXI presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. This month effluent was not sprayed as dust control.

Total Effluent Hauled (Column XXII)

Column XXII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month effluent was not hauled off site.

Total Evaporation (Column XXIII)

Column XXIII presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. Total evaporation estimated for this month was 617,300 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 2,785,449 gallons. Total outflow quantity from the LTRF was 2,600,811 gallons. The change in storage for the month increased by 184,638 gallons.

Please advise should you have any questions concerning the information provided.

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM
MAY 2016
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV | XVI | XVII | XVIII | XIX | XX | XXI | XXII | XXIII |
|---------------|----------------|-----------------------|-----------------------|-------------------------------|---|--|--|--|---|---|------------------------------|------------------------------|---------------------------------|------------------------------|--|-----------------------|-----------------------|--------------------------------|----------------------------|--|------------------------------|--------------------------|
| Day | Rainfall (in.) | Depth in Pond A (ft.) | Depth in Pond B (ft.) | Estimated Depth at PS-B (in.) | Leachate Pumped to MLPS from Phases I-VI (gal.) | Leachate Pumped from Sections 7-8 LDS (gal.) | Leachate Pumped to MLPS from Sections 7-8 (gal.) | Leachate Pumped to LTRF from MPLS (gal.) | Leachate Pumped to LTRF from Section 9 (gal.) | Leachate Pumped from Section 9 LDS (gal.) | Leachate in 575K Tank (gal.) | Effluent in 575K Tank (gal.) | Leachate Treated at LTRF (gal.) | Total Leachate Hauled (gal.) | Leachate Dust Control (Sprayed) (gal.) | Pond A Storage (gal.) | Pond B Storage (gal.) | Effluent Sprayed Pond B (gal.) | Effluent Irrigation (gal.) | Effluent Dust Control (Sprayed) (gal.) | Total Effluent Hauled (gal.) | Total Evaporation (gal.) |
| 1 | 0.00 | 1.3 | 0.0 | 34.6 | 94,189 | 31 | 3,280 | 97,469 | 6 | 0 | 344,000 | 216,000 | 6,700 | 0 | 36,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0.45 | 1.3 | 0.0 | 34.5 | 94,189 | 31 | 3,280 | 97,469 | 6 | 0 | 432,000 | 216,000 | 6,700 | 64,900 | 0 | 36,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0.00 | 2.2 | 0.0 | 34.4 | 88,770 | 66 | 1,085 | 89,855 | 8 | 0 | 410,000 | 216,000 | 37,300 | 42,858 | 0 | 70,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2.60 | 2.9 | 0.0 | 34.5 | 80,988 | 0 | 2,705 | 83,693 | 6 | 0 | 410,000 | 216,000 | 37,900 | 71,359 | 0 | 103,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0.00 | 3.5 | 1.0 | 34.0 | 99,680 | 62 | 37 | 99,717 | 4 | 0 | 408,000 | 216,000 | 31,100 | 49,611 | 0 | 140,000 | 19,000 | 0 | 0 | 0 | 0 | 0 |
| 6 | 0.00 | 3.5 | 1.0 | 34.1 | 87,989 | 63 | 0 | 87,989 | 10 | 0 | 432,000 | 216,000 | 25,000 | 71,731 | 0 | 140,000 | 19,000 | 0 | 0 | 0 | 0 | 0 |
| 7 | 0.00 | 3.5 | 1.5 | 34.1 | 89,872 | 0 | 0 | 89,872 | 6 | 0 | 410,000 | 216,000 | 33,700 | 42,274 | 0 | 140,000 | 44,000 | 0 | 61,281 | 0 | 0 | 49,000 |
| 8 | 0.00 | 3.5 | 1.5 | 34.1 | 87,230 | 33 | 6,174 | 93,403 | 5 | 0 | 446,000 | 216,000 | 33,700 | 0 | 0 | 140,000 | 44,000 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0.00 | 3.5 | 1.5 | 34.1 | 87,230 | 33 | 6,174 | 93,403 | 5 | 0 | 482,000 | 216,000 | 33,700 | 78,649 | 0 | 140,000 | 44,000 | 0 | 67,532 | 0 | 0 | 54,000 |
| 10 | 0.00 | 2.4 | 1.5 | 34.0 | 86,900 | 0 | 0 | 86,900 | 4 | 0 | 475,000 | 216,000 | 12,700 | 71,828 | 0 | 79,000 | 44,000 | 0 | 78,730 | 0 | 0 | 63,000 |
| 11 | 0.00 | 2.4 | 0.9 | 33.9 | 86,900 | 117 | 5,689 | 92,589 | 7 | 0 | 461,000 | 216,000 | 35,300 | 79,123 | 0 | 79,000 | 15,000 | 0 | 51,649 | 0 | 0 | 41,300 |
| 12 | 0.00 | 2.5 | 0.5 | 33.5 | 88,700 | 0 | 5,828 | 94,528 | 10 | 0 | 444,000 | 216,000 | 33,000 | 71,345 | 0 | 83,000 | 4,000 | 0 | 65,442 | 0 | 0 | 52,400 |
| 13 | 0.00 | 1.4 | 0.0 | 33.4 | 92,798 | 61 | 2,327 | 95,125 | 7 | 0 | 468,000 | 216,000 | 33,500 | 71,986 | 0 | 36,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | 0.00 | 2.0 | 0.0 | 33.6 | 97,986 | 64 | 4,839 | 102,825 | 5 | 0 | 427,000 | 216,000 | 26,600 | 42,339 | 0 | 61,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | 0.00 | 2.5 | 0.3 | 33.6 | 70,508 | 35 | 3,608 | 74,116 | 9 | 0 | 447,000 | 216,000 | 26,600 | 0 | 0 | 83,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | 0.90 | 3.0 | 0.5 | 33.5 | 70,508 | 35 | 3,608 | 74,116 | 9 | 0 | 468,000 | 216,000 | 26,600 | 64,963 | 0 | 108,000 | 4,000 | 0 | 65,390 | 0 | 0 | 52,300 |
| 17 | 2.98 | 2.5 | 0.8 | 33.4 | 94,100 | 0 | 2,421 | 96,521 | 8 | 0 | 461,000 | 216,000 | 35,000 | 71,714 | 0 | 83,000 | 12,000 | 0 | 13,741 | 0 | 0 | 11,000 |
| 18 | 0.00 | 3.2 | 1.2 | 33.6 | 96,600 | 38 | 2,501 | 99,101 | 10 | 0 | 463,000 | 216,000 | 36,400 | 72,036 | 0 | 118,000 | 28,000 | 0 | 0 | 0 | 0 | 0 |
| 19 | 0.00 | 3.5 | 1.4 | 33.6 | 92,200 | 0 | 0 | 92,200 | 11 | 0 | 444,000 | 216,000 | 33,900 | 71,977 | 0 | 140,000 | 38,000 | 0 | 0 | 0 | 0 | 0 |
| 20 | 1.07 | 3.5 | 1.7 | 33.6 | 90,296 | 67 | 0 | 90,296 | 9 | 0 | 434,000 | 216,000 | 32,600 | 56,445 | 0 | 140,000 | 57,000 | 0 | 0 | 0 | 0 | 0 |
| 21 | 0.00 | 3.5 | 2.1 | 33.6 | 91,648 | 78 | 0 | 91,648 | 6 | 0 | 432,000 | 216,000 | 34,600 | 49,492 | 0 | 140,000 | 88,000 | 0 | 0 | 0 | 0 | 0 |
| 22 | 0.00 | 3.5 | 2.4 | 33.6 | 84,878 | 13 | 0 | 84,878 | 8 | 0 | 459,000 | 216,000 | 34,600 | 0 | 0 | 140,000 | 106,000 | 0 | 0 | 0 | 0 | 0 |
| 23 | 0.00 | 3.5 | 2.6 | 33.5 | 84,878 | 13 | 0 | 84,878 | 8 | 0 | 487,000 | 216,000 | 34,600 | 79,190 | 0 | 140,000 | 133,000 | 0 | 80,195 | 0 | 0 | 64,200 |
| 24 | 0.00 | 2.6 | 2.6 | 33.5 | 88,000 | 118 | 0 | 88,000 | 4 | 0 | 463,000 | 216,000 | 33,100 | 71,954 | 0 | 88,000 | 133,000 | 0 | 40,644 | 0 | 0 | 32,500 |
| 25 | 0.00 | 3.4 | 2.1 | 33.6 | 91,900 | 68 | 64 | 91,964 | 5 | 0 | 446,000 | 216,000 | 34,400 | 71,783 | 0 | 129,000 | 88,000 | 0 | 61,438 | 0 | 0 | 49,200 |
| 26 | 0.00 | 3.5 | 2.0 | 33.4 | 88,200 | 59 | 0 | 88,200 | 9 | 0 | 422,000 | 180,000 | 33,700 | 72,017 | 0 | 140,000 | 80,000 | 0 | 81,089 | 0 | 0 | 64,900 |
| 27 | 0.00 | 2.7 | 2.0 | 33.8 | 79,214 | 38 | 0 | 79,214 | 9 | 0 | 394,000 | 173,000 | 33,800 | 102,566 | 0 | 93,000 | 80,000 | 0 | 38,965 | 0 | 0 | 31,200 |
| 28 | 0.00 | 3.1 | 1.3 | 32.4 | 81,872 | 65 | 41 | 81,913 | 8 | 0 | 350,000 | 202,000 | 33,000 | 45,206 | 0 | 113,000 | 33,000 | 0 | 38,950 | 0 | 0 | 31,200 |
| 29 | 0.00 | 3.0 | 1.3 | 32.8 | 83,738 | 92 | 12 | 83,750 | 9 | 0 | 380,000 | 233,000 | 33,000 | 0 | 0 | 108,000 | 33,000 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0.03 | 2.9 | 1.3 | 33.0 | 55,825 | 62 | 8 | 55,833 | 6 | 0 | 400,000 | 254,000 | 33,000 | 0 | 0 | 108,000 | 33,000 | 0 | 0 | 0 | 0 | 0 |
| 31 | 0.00 | 2.8 | 1.3 | 33.5 | 111,651 | 123 | 16 | 111,666 | 12 | 0 | 439,000 | 295,000 | 33,000 | 64,665 | 0 | 98,000 | 33,000 | 0 | 26,389 | 0 | 0 | 21,100 |
| Total | 8.03 | | | | 2,719,435 | 1,463 | 53,694 | 2,773,129 | 228 | 0 | | | 948,800 | 1,652,011 | 0 | | | 0 | 771,435 | 0 | 0 | 617,300 |
| Daily Average | | 2.9 | 1.2 | 33.7 | 87,724 | 47 | 1,732 | 89,456 | 7 | 0 | 433,500 | 217,300 | | | | 104,900 | 39,100 | | | | | |
| Mo. Average | | | | | | | | | | | | | | | 0 | | | | 24,900 | 0 | 0 | 19,910 |

projects\balance\2016\05-16bal.xls (Ds 6/10/16)

- Notes:
- NR = No Records, NA = Not Available.
 - Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
 - Daily average is calculated by dividing the total by the actual days measured in the month.
 - Monthly average calculated by dividing the total by the number of days of the month.
 - Column II, Trace is less than 0.01 inches and is not included in total.
 - Columns III and IV, field measured at staff gauges.
 - Column V, PPS-B sensor reading plus 9 inches.
 - Columns VIII & IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
 - Column XIII and XIV, calculated from depth in 575,000 gal. tanks.
 - Columns VI-XII, XV-XVII, and XX-XXIII, quantities from flow meters.
 - Column XXIV includes 80% of the daily values from Columns XVII, XXI, and XXII plus 5% of the daily values from column XX.

**TABLE 2. FIELD DATA ENTRY FORM
MAY 2016
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | |
|--------|----------------|-------------------------------|--------------------|-------------------------|-------------------------|----------------------|--------------------------|-------------------------|--------------------|--------------------------------|--------------------|----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|-------------------|---------------|--|-------------------|---------------|--|----------|
| Day | Rainfall (in.) | Flow Meter Pump Sta. A (gal.) | Reading PS-B (in.) | Section 9 Pump 1 (gal.) | Section 9 Pump 2 (gal.) | Section 9 LDS (gal.) | Sections 7-8 Pump (gal.) | Sections 7-8 LDS (gal.) | Pond B Depth (ft.) | Pond B Effluent Sprayed (gal.) | Pond A Depth (ft.) | Effluent Spray Irrigation (gal.) | Depth in 575K Tank Leachate (ft.) | Depth in 575K Tank Effluent (ft.) | Leachate Treated at LTRF (gal.) | Leachate Hauled | | Leachate Dust Control (Sprayed) (gal.) | Effluent Hauled | | Effluent Dust Control (Sprayed) (gal.) | |
| | | | | | | | | | | | | | | | | Contractor (gal.) | County (gal.) | | Contractor (gal.) | County (gal.) | | |
| 1 | 0.00 | 7,330,354 | 25.6 | 2,960,338 | 724,445 | 5,814,537 | 947,462 | 140,460 | 0.0 | 0.0 | 1.3 | 0 | 11.96 | 7.50 | 6,717 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0.45 | 7,424,542 | 25.5 | 2,960,341 | 724,447 | 5,814,537 | 950,742 | 140,490 | 0.0 | 0.0 | 1.3 | 0 | 15.00 | 7.50 | 6,718 | 28,184 | 36,716 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0.00 | 7,513,312 | 25.4 | 2,960,346 | 724,450 | 5,814,537 | 951,827 | 140,556 | 0.0 | 0.0 | 2.2 | 0 | 14.25 | 7.50 | 37,298 | 28,185 | 14,673 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2.60 | 7,594,300 | 25.5 | 2,960,352 | 724,450 | 5,814,537 | 954,532 | 140,556 | 0.0 | 0.0 | 2.9 | 0 | 14.25 | 7.50 | 37,888 | 42,238 | 29,121 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0.00 | 7,693,980 | 25.0 | 2,960,353 | 724,453 | 5,814,537 | 954,569 | 140,618 | 1.0 | 0.0 | 3.5 | 0 | 14.17 | 7.50 | 31,116 | 42,283 | 7,328 | 0 | 0 | 0 | 0 | 0 |
| 6 | 0.00 | 7,781,969 | 25.1 | 2,960,358 | 724,458 | 5,814,537 | 954,552 | 140,681 | 1.0 | 0.0 | 3.5 | 0 | 15.00 | 7.50 | 25,043 | 35,266 | 36,465 | 0 | 0 | 0 | 0 | 0 |
| 7 | 0.00 | 7,871,841 | 25.1 | 2,960,361 | 724,461 | 5,814,537 | 954,209 | 140,681 | 1.5 | 0.0 | 3.5 | 61,281 | 14.25 | 7.50 | 33,715 | 42,274 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | 0.00 | 7,959,071 | 25.1 | 2,960,365 | 724,463 | 5,814,537 | 960,383 | 140,714 | 1.5 | 0.0 | 3.5 | 0 | 15.50 | 7.50 | 33,715 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0.00 | 8,046,300 | 25.1 | 2,960,368 | 724,464 | 5,814,537 | 966,556 | 140,747 | 1.5 | 0.0 | 3.5 | 67,532 | 16.75 | 7.50 | 33,715 | 42,355 | 36,294 | 0 | 0 | 0 | 0 | 0 |
| 10 | 0.00 | 8,133,200 | 25.0 | 2,960,370 | 724,466 | 5,814,537 | 966,553 | 140,747 | 1.5 | 0.0 | 2.4 | 78,730 | 16.50 | 7.50 | 12,669 | 42,359 | 29,469 | 0 | 0 | 0 | 0 | 0 |
| 11 | 0.00 | 8,220,100 | 24.9 | 2,960,371 | 724,472 | 5,814,537 | 972,242 | 140,864 | 0.9 | 0.0 | 2.4 | 51,649 | 16.00 | 7.50 | 35,316 | 42,379 | 36,744 | 0 | 0 | 0 | 0 | 0 |
| 12 | 0.00 | 8,308,800 | 24.5 | 2,960,379 | 724,474 | 5,814,537 | 978,070 | 140,864 | 0.5 | 0.0 | 2.5 | 65,442 | 15.42 | 7.50 | 32,951 | 35,296 | 36,049 | 0 | 0 | 0 | 0 | 0 |
| 13 | 0.00 | 8,401,598 | 24.4 | 2,960,385 | 724,475 | 5,814,537 | 980,397 | 140,925 | 0.0 | 0.0 | 1.4 | 0 | 16.25 | 7.50 | 33,482 | 35,234 | 36,752 | 0 | 0 | 0 | 0 | 0 |
| 14 | 0.00 | 8,499,584 | 24.6 | 2,960,385 | 724,480 | 5,814,537 | 985,236 | 140,989 | 0.0 | 0.0 | 2.0 | 0 | 14.83 | 7.50 | 26,575 | 42,339 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | 0.00 | 8,570,092 | 24.6 | 2,960,389 | 724,485 | 5,814,537 | 988,844 | 141,024 | 0.3 | 0.0 | 2.5 | 0 | 15.54 | 7.50 | 26,575 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | 0.90 | 8,640,600 | 24.5 | 2,960,393 | 724,490 | 5,814,537 | 992,451 | 141,058 | 0.5 | 0.0 | 3.0 | 65,390 | 16.25 | 7.50 | 26,575 | 35,324 | 29,639 | 0 | 0 | 0 | 0 | 0 |
| 17 | 2.98 | 8,734,700 | 24.4 | 2,960,398 | 724,493 | 5,814,537 | 994,872 | 141,058 | 0.8 | 0.0 | 2.5 | 13,741 | 16.00 | 7.50 | 35,016 | 35,332 | 36,382 | 0 | 0 | 0 | 0 | 0 |
| 18 | 0.00 | 8,831,300 | 24.6 | 2,960,405 | 724,496 | 5,814,537 | 997,373 | 141,096 | 1.2 | 0.0 | 3.2 | 0 | 16.08 | 7.50 | 36,361 | 35,369 | 36,667 | 0 | 0 | 0 | 0 | 0 |
| 19 | 0.00 | 8,923,500 | 24.6 | 2,960,414 | 724,498 | 5,814,537 | 996,944 | 141,096 | 1.4 | 0.0 | 3.5 | 0 | 15.42 | 7.50 | 33,945 | 35,309 | 36,668 | 0 | 0 | 0 | 0 | 0 |
| 20 | 1.07 | 9,013,796 | 24.6 | 2,960,422 | 724,499 | 5,814,537 | 996,829 | 141,163 | 1.7 | 0.0 | 3.5 | 0 | 15.08 | 7.50 | 32,623 | 56,445 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 | 0.00 | 9,105,444 | 24.6 | 2,960,426 | 724,501 | 5,814,537 | 996,712 | 141,241 | 2.1 | 0.0 | 3.5 | 0 | 15.00 | 7.50 | 34,647 | 49,492 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | 0.00 | 9,190,322 | 24.6 | 2,960,429 | 724,506 | 5,814,537 | 996,684 | 141,254 | 2.4 | 0.0 | 3.5 | 0 | 15.96 | 7.50 | 34,647 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | 0.00 | 9,275,200 | 24.5 | 2,960,431 | 724,511 | 5,814,537 | 996,655 | 141,267 | 2.6 | 0.0 | 3.5 | 80,195 | 16.92 | 7.50 | 34,647 | 42,412 | 36,778 | 0 | 0 | 0 | 0 | 0 |
| 24 | 0.00 | 9,363,200 | 24.5 | 2,960,432 | 724,514 | 5,814,537 | 996,651 | 141,385 | 2.6 | 0.0 | 2.6 | 40,644 | 16.08 | 7.50 | 33,052 | 42,502 | 29,452 | 0 | 0 | 0 | 0 | 0 |
| 25 | 0.00 | 9,455,100 | 24.6 | 2,960,434 | 724,517 | 5,814,537 | 996,715 | 141,453 | 2.1 | 0.0 | 3.4 | 61,438 | 15.50 | 7.50 | 34,373 | 42,357 | 29,426 | 0 | 0 | 0 | 0 | 0 |
| 26 | 0.00 | 9,543,300 | 24.4 | 2,960,437 | 724,523 | 5,814,537 | 996,714 | 141,512 | 2.0 | 0.0 | 3.5 | 81,089 | 14.67 | 6.25 | 33,715 | 35,258 | 36,759 | 0 | 0 | 0 | 0 | 0 |
| 27 | 0.00 | 9,622,514 | 24.8 | 2,960,443 | 724,526 | 5,814,537 | 996,712 | 141,550 | 2.0 | 0.0 | 2.7 | 38,965 | 13.67 | 6.00 | 33,778 | 102,566 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 | 0.00 | 9,704,386 | 23.4 | 2,960,448 | 724,529 | 5,814,537 | 996,753 | 141,615 | 1.3 | 0.0 | 3.1 | 38,950 | 12.17 | 7.00 | 32,959 | 45,206 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 | 0.00 | 9,788,124 | 23.8 | 2,960,454 | 724,532 | 5,814,537 | 996,765 | 141,707 | 1.3 | 0.0 | 3.0 | 0 | 13.20 | 8.08 | 32,959 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0.03 | 9,843,949 | 24.0 | 2,960,459 | 724,533 | 5,814,537 | 996,772 | 141,769 | 1.3 | 0.0 | 2.9 | 0 | 13.88 | 8.81 | 32,959 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31 | 0.00 | 9,955,600 | 24.5 | 2,960,467 | 724,537 | 5,814,537 | 996,788 | 141,892 | 1.3 | 0.0 | 2.8 | 26,389 | 15.25 | 10.25 | 32,959 | 35,352 | 29,313 | 0 | 0 | 0 | 0 | 0 |
| Totals | 8.03 | | | | | | | | | 0 | | 771,435 | | | 0 | 1,051,316 | 600,695 | 0 | 0 | 0 | 0 | 0 |

projects\balance\2016\05-16bal.xls (Ds 6/10/16)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column B, trace is less than 0.01 inches.
5. Columns C, D, F, G, H, I, J, L, N, Q, R-V and W are quantities from flow meters.
6. Columns K and M measured from staff gages in each pond.

| Type of Cover | Phases I-VI acres | Sections 7-8 acres | Section 9 acres |
|---------------|-------------------|--------------------|-----------------|
| Open | 5 | 0 | 0 |
| Intermediate | 134.4 | 19.3 | 15 |
| Final | 23 | 0 | 0 |
| Not Opened | 0 | 0 | 0 |

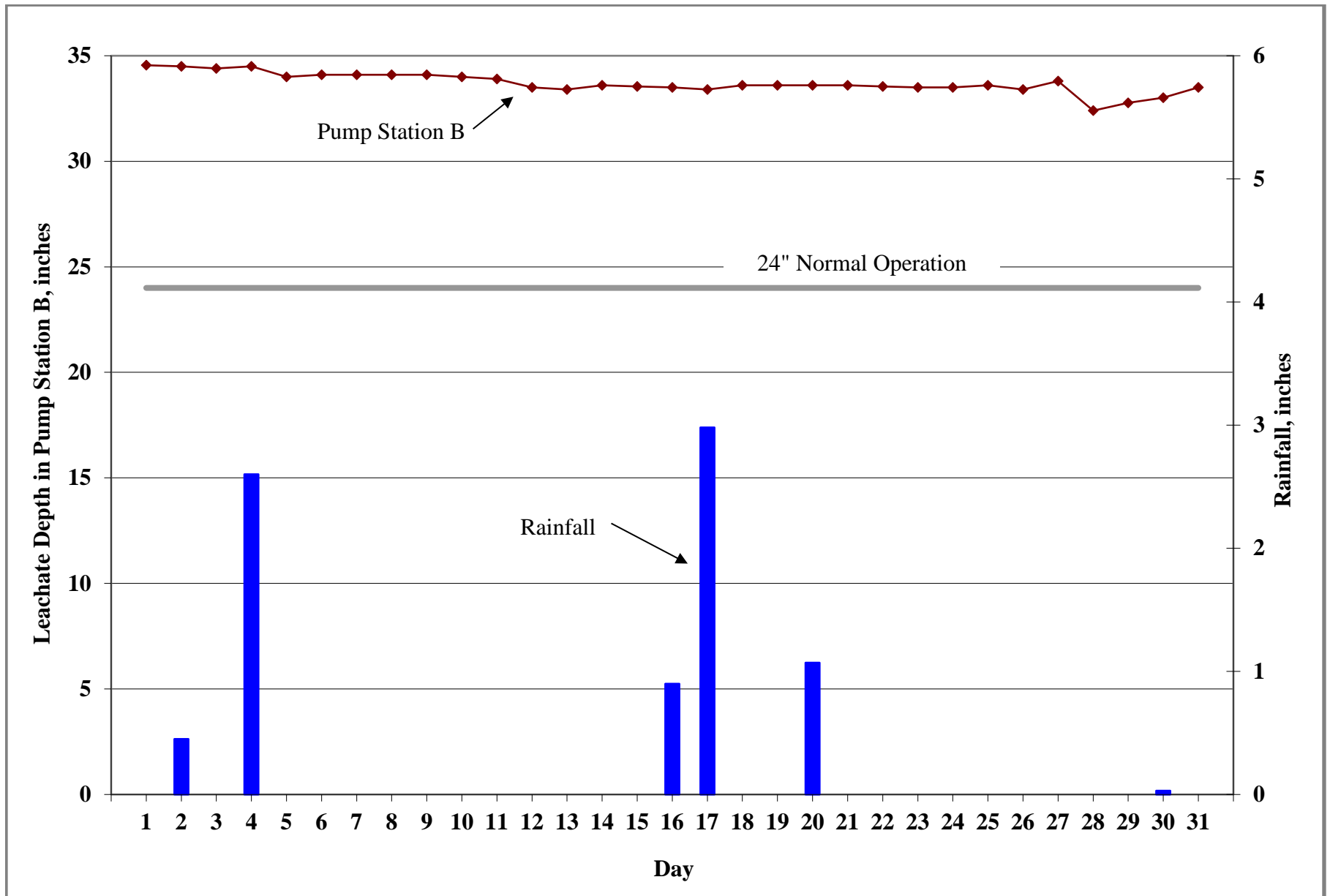


Figure 1. Leachate Levels in Pump Station B and Rainfall for May 2016.



Public Works

Board of County Commissioners

Kevin Beckner
Victor D. Crist
Ken Hagan
Al Higginbotham
Lesley "Les" Miller, Jr.
Sandra L. Murman
Stacy R. White

County Administrator Michael S. Merrill

County Administrator Executive Team Lucia E. Garsys Carl S. Harness Gregory S. Horwedel Ramin Kouzehkanani Liana Lopez Bonnie M. Wise

Interim Internal Auditor Peggy Caskey

County Attorney Chip Fletcher

Public Works
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Fax: (813) 272-5811

DATE: July 8, 2016

TO: Larry E. Ruiz, Manager Landfill Operations, Solid Waste Management Division

FROM: Cindy A. Pelley, Landfill Supervisor, Solid Waste Management Division

SUBJECT: Leachate Water Balance Report Forms for June 2016
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2016 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 11.46 inches of rainfall at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 2.9 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of effluent stored in Pond B was 1.5.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. This month the PS-B normal operation level of 24 inches was not achieved due to settlement of the sump within the landfill. The average recorded depth of leachate in the PS-B sump was 32.5 inches.

Leachate Pumped to MLPS from Phases I-VI (Column VI)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. The average daily amount of leachate pumped from PS-A was 82,413 gallons. A total of 2,472,400 gallons of leachate was pumped this month.

Leachate Pumped from Sections 7-8 LDS (Column VII)

Column VII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. This month a total of 3,389 gallons of leachate was removed from the leak detection system of Sections 7-8.

Leachate Pumped to MLPS from Sections 7-8 (Column VIII)

Column VIII presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column VIII). This month a total of 1 gallon of leachate was pumped from Sections 7-8.

Leachate Pumped to LTRF from the MLPS (Column IX)

Column IX presents the total quantity of leachate pumped to the LTRF from Phases I-VI and Sections 7-8. This month a total of 2,472,401 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column X)

Column X presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. A total of 236 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XI)

Column XI presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month leachate was not removed from the leak detection system.

Leachate in 575,000-Gallon Tank (Column XII)

Column XII presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 417,400 gallons of leachate was stored in the tank.

Effluent in 575,000-Gallon Tank (Column XIII)

Column XIII presents the daily amount of effluent, in gallons, stored in the 575,000-gallon effluent holding tank at the LTRF. The amount of effluent stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 389,100 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 853,400 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XV)

Column XV presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,650,372 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the landfill. This month 5,293 gallons of leachate was used for dust control.

Pond A Storage (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 103,300 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated. This month a daily average of 51,000 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XXIV. This month effluent was not sprayed in Pond B.

Effluent Irrigation (Column XX)

Column XX presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases I-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 1,097,101 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXI)

Column XXI presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. This month 9,579 gallons of effluent was sprayed as dust control.

Total Effluent Hauled (Column XXII)

Column XXII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month 21,936 gallons of effluent was hauled off site.

Total Evaporation (Column XXIII)

Column XXIII presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. Total evaporation estimated for this month was 889,400 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 2,486,384 gallons. Total outflow quantity from the LTRF was 2,509,065 gallons. The change in storage for the month decreased by 22,681 gallons.

Please advise should you have any questions concerning the information provided.

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JUNE 2016
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV | XVI | XVII | XVIII | XIX | XX | XXI | XXII | XXIII |
|---------------|----------------|-----------------------|-----------------------|-------------------------------|---|--|--|--|---|---|------------------------------|------------------------------|---------------------------------|------------------------------|--|-----------------------|-----------------------|--------------------------------|----------------------------|--|------------------------------|--------------------------|
| Day | Rainfall (in.) | Depth in Pond A (ft.) | Depth in Pond B (ft.) | Estimated Depth at PS-B (in.) | Leachate Pumped to MLPS from Phases I-VI (gal.) | Leachate Pumped from Sections 7-8 LDS (gal.) | Leachate Pumped to MLPS from Sections 7-8 (gal.) | Leachate Pumped to LTRF from MPLS (gal.) | Leachate Pumped to LTRF from Section 9 (gal.) | Leachate Pumped from Section 9 LDS (gal.) | Leachate in 575K Tank (gal.) | Effluent in 575K Tank (gal.) | Leachate Treated at LTRF (gal.) | Total Leachate Hauled (gal.) | Leachate Dust Control (Sprayed) (gal.) | Pond A Storage (gal.) | Pond B Storage (gal.) | Effluent Sprayed Pond B (gal.) | Effluent Irrigation (gal.) | Effluent Dust Control (Sprayed) (gal.) | Total Effluent Hauled (gal.) | Total Evaporation (gal.) |
| 1 | 0.01 | 2.8 | 1.3 | 31.5 | 82,500 | 78 | 0 | 82,500 | 24 | 0 | 420,000 | 302,000 | 31,100 | 79,090 | 0 | 98,000 | 33,000 | 0 | 61,773 | 0 | 0 | 49,400 |
| 2 | 0.00 | 2.7 | 1.2 | 31.7 | 85,100 | 102 | 0 | 85,100 | 9 | 0 | 394,000 | 317,000 | 33,600 | 78,853 | 0 | 93,000 | 28,000 | 0 | 63,349 | 0 | 0 | 50,700 |
| 3 | 0.65 | 2.5 | 0.7 | 32.1 | 84,400 | 114 | 0 | 84,400 | 10 | 0 | 358,000 | 331,000 | 31,400 | 64,545 | 0 | 83,000 | 9,000 | 0 | 55,764 | 0 | 0 | 44,600 |
| 4 | 0.00 | 2.0 | 0.7 | 32.4 | 82,999 | 153 | 0 | 82,999 | 10 | 0 | 362,000 | 331,000 | 34,800 | 0 | 0 | 61,000 | 9,000 | 0 | 0 | 0 | 0 | 0 |
| 5 | 1.75 | 2.8 | 0.8 | 32.0 | 82,501 | 100 | 0 | 82,501 | 11 | 0 | 411,000 | 332,000 | 34,800 | 0 | 0 | 98,000 | 9,000 | 0 | 0 | 0 | 0 | 0 |
| 6 | 1.25 | 3.5 | 0.8 | 31.5 | 82,501 | 100 | 0 | 82,501 | 11 | 0 | 461,000 | 333,000 | 34,800 | 36,257 | 0 | 140,000 | 12,000 | 0 | 0 | 0 | 0 | 0 |
| 7 | 1.57 | 3.5 | 1.1 | 32.1 | 85,600 | 165 | 1 | 85,601 | 6 | 0 | 461,000 | 336,000 | 34,600 | 50,820 | 0 | 140,000 | 23,000 | 0 | 0 | 0 | 0 | 0 |
| 8 | 1.57 | 3.5 | 2.2 | 32.4 | 86,807 | 201 | 0 | 86,807 | 0 | 0 | 480,000 | 360,000 | 31,200 | 72,236 | 0 | 140,000 | 97,000 | 0 | 0 | 0 | 0 | 0 |
| 9 | 2.08 | 3.4 | 2.3 | 32.4 | 81,493 | 291 | 0 | 81,493 | 9 | 0 | 456,000 | 386,000 | 29,100 | 64,797 | 0 | 129,000 | 106,000 | 0 | 0 | 0 | 0 | 0 |
| 10 | 0.01 | 3.4 | 2.3 | 32.4 | 80,015 | 29 | 0 | 80,015 | 4 | 0 | 446,000 | 405,000 | 27,900 | 78,893 | 0 | 129,000 | 106,000 | 0 | 0 | 0 | 0 | 0 |
| 11 | 0.00 | 3.4 | 2.3 | 33.9 | 57,464 | 292 | 0 | 57,464 | 8 | 0 | 408,000 | 437,000 | 28,800 | 42,498 | 0 | 129,000 | 106,000 | 0 | 0 | 0 | 0 | 0 |
| 12 | 0.00 | 3.4 | 2.4 | 33.3 | 79,711 | 291 | 0 | 79,711 | 4 | 0 | 441,000 | 457,000 | 28,800 | 0 | 0 | 129,000 | 115,000 | 0 | 0 | 0 | 0 | 0 |
| 13 | 0.01 | 3.4 | 2.5 | 32.7 | 79,711 | 291 | 0 | 79,711 | 4 | 0 | 475,000 | 477,000 | 28,800 | 49,526 | 0 | 129,000 | 124,000 | 0 | 53,555 | 0 | 0 | 42,800 |
| 14 | 0.00 | 2.8 | 2.5 | 32.9 | 79,800 | 293 | 0 | 79,800 | 12 | 0 | 475,000 | 485,000 | 26,700 | 79,041 | 0 | 98,000 | 124,000 | 0 | 61,815 | 0 | 0 | 49,500 |
| 15 | 0.00 | 2.9 | 2.2 | 33.5 | 77,500 | 293 | 0 | 77,500 | 11 | 0 | 444,000 | 461,000 | 33,900 | 86,091 | 0 | 103,000 | 97,000 | 0 | 67,813 | 9,579 | 0 | 61,900 |
| 16 | 0.17 | 3.5 | 1.7 | 33.3 | 76,800 | 293 | 0 | 76,800 | 10 | 0 | 415,000 | 427,000 | 18,400 | 50,499 | 0 | 140,000 | 57,000 | 0 | 39,050 | 0 | 21,936 | 31,200 |
| 17 | 0.00 | 3.2 | 1.7 | 32.2 | 77,477 | 288 | 0 | 77,477 | 5 | 0 | 417,000 | 403,000 | 22,700 | 79,126 | 0 | 118,000 | 57,000 | 0 | 76,160 | 0 | 0 | 60,900 |
| 18 | 1.07 | 2.4 | 1.5 | 33.5 | 81,958 | 8 | 0 | 81,958 | 8 | 0 | 389,000 | 420,000 | 27,600 | 42,442 | 0 | 79,000 | 44,000 | 0 | 30,232 | 0 | 0 | 24,200 |
| 19 | 0.15 | 2.1 | 1.6 | 32.8 | 81,583 | 3 | 0 | 81,583 | 7 | 0 | 420,000 | 446,000 | 27,600 | 0 | 0 | 65,000 | 44,000 | 0 | 0 | 0 | 0 | 0 |
| 20 | 0.00 | 1.7 | 1.6 | 32.0 | 81,583 | 3 | 0 | 81,583 | 7 | 0 | 451,000 | 473,000 | 27,600 | 79,235 | 0 | 48,000 | 51,000 | 0 | 44,038 | 0 | 0 | 35,200 |
| 21 | 0.00 | 2.8 | 1.6 | 32.3 | 81,100 | 3 | 0 | 81,100 | 9 | 0 | 417,000 | 439,000 | 23,200 | 71,955 | 5,293 | 98,000 | 51,000 | 0 | 86,243 | 0 | 0 | 73,200 |
| 22 | 0.00 | 1.9 | 1.6 | 32.7 | 80,100 | 0 | 0 | 80,100 | 6 | 0 | 389,000 | 417,000 | 28,900 | 71,730 | 0 | 57,000 | 51,000 | 0 | 78,799 | 0 | 0 | 63,000 |
| 23 | 0.40 | 1.9 | 1.1 | 32.7 | 79,300 | 1 | 0 | 79,300 | 8 | 0 | 374,000 | 410,000 | 26,900 | 64,328 | 0 | 57,000 | 23,000 | 0 | 0 | 0 | 0 | 0 |
| 24 | 0.01 | 3.0 | 1.1 | 32.6 | 84,157 | 0 | 0 | 84,157 | 10 | 0 | 360,000 | 381,000 | 19,000 | 71,560 | 0 | 108,000 | 23,000 | 0 | 0 | 0 | 0 | 0 |
| 25 | 0.00 | 3.4 | 1.2 | 32.6 | 87,453 | 0 | 0 | 87,453 | 3 | 0 | 358,000 | 360,000 | 26,000 | 45,366 | 0 | 129,000 | 28,000 | 0 | 51,768 | 0 | 0 | 41,400 |
| 26 | 0.06 | 3.2 | 1.3 | 32.5 | 89,195 | 0 | 0 | 89,195 | 7 | 0 | 394,000 | 365,000 | 26,000 | 0 | 0 | 118,000 | 28,000 | 0 | 63,872 | 0 | 0 | 51,100 |
| 27 | 0.00 | 2.9 | 1.4 | 32.3 | 89,195 | 0 | 0 | 89,195 | 7 | 0 | 430,000 | 369,000 | 26,000 | 71,850 | 0 | 103,000 | 38,000 | 0 | 75,976 | 0 | 0 | 60,800 |
| 28 | 0.00 | 2.6 | 1.0 | 32.9 | 90,075 | 0 | 0 | 90,075 | 8 | 0 | 413,000 | 367,000 | 23,600 | 71,098 | 0 | 88,000 | 19,000 | 0 | 58,079 | 0 | 0 | 46,500 |
| 29 | 0.00 | 2.8 | 0.7 | 32.3 | 91,591 | 0 | 0 | 91,591 | 2 | 0 | 405,000 | 345,000 | 28,600 | 63,792 | 0 | 98,000 | 9,000 | 0 | 83,529 | 0 | 0 | 66,800 |
| 30 | 0.70 | 2.7 | 0.7 | 32.3 | 92,734 | 0 | 0 | 92,734 | 7 | 0 | 398,000 | 302,000 | 31,000 | 84,744 | 0 | 93,000 | 9,000 | 0 | 45,286 | 0 | 0 | 36,200 |
| Total | 11.46 | | | | 2,472,400 | 3,389 | 1 | 2,472,401 | 236 | 0 | | | 853,400 | 1,650,372 | 5,293 | | | | 1,097,101 | 9,579 | 21,936 | 889,400 |
| Daily Average | | 2.9 | 1.5 | 32.5 | 82,413 | 113 | | 82,413 | 8 | 0 | 417,400 | 389,100 | | | | 103,300 | 51,000 | | | | | |
| Mo. Average | | | | | | | | | | | | | | | 200 | | | | 36,600 | | 700 | 29,650 |

- Notes:
1. NR = No Records, NA = Not Available.
 2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
 3. Daily average is calculated by dividing the total by the actual days measured in the month.
 4. Monthly average calculated by dividing the total by the number of days of the month.
 5. Column II, Trace is less than 0.01 inches and is not included in total.
 6. Columns III and IV, field measured at staff gauges.
 7. Column V, PPS-B sensor reading plus 9 inches.
 8. Columns VIII & IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
 9. Column XIII and XIV, calculated from depth in 575,000 gal. tanks.
 10. Columns VI-XII, XV-XVII, and XX-XXIII, quantities from flow meters.
 11. Column XXIV includes 80% of the daily values from Columns XVII, XXI, and XXII plus 5% of the daily values from column XX.

projects\balance\2016\06-16bal.xls (DS 7/2/16)

**TABLE 2. FIELD DATA ENTRY FORM
JUNE 2016
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| A Day | B Rainfall (in.) | C Flow Meter Pump Sta. A (gal.) | D Reading PS-B (in.) | E Section 9 Pump 1 (gal.) | F Section 9 Pump 2 (gal.) | G Section 9 LDS (gal.) | H Sections 7-8 Pump (gal.) | I Sections 7-8 LDS (gal.) | J Pond B Depth (ft.) | K Pond B Effluent Sprayed (gal.) | L Pond A Depth (ft.) | M Effluent Spray Irrigation (gal.) | N Depth in 575K Tank Leachate (ft.) | O Depth in 575K Tank Effluent (ft.) | P Leachate Treated at LTRF (gal.) | Q Leachate Hauled | | S Leachate Dust Control (Sprayed) (gal.) | T Effluent Hauled | | V Effluent Dust Control (Sprayed) (gal.) |
|----------|------------------------|--|-------------------------------|------------------------------------|------------------------------------|---------------------------------|-------------------------------------|------------------------------------|-------------------------------|--|-------------------------------|--|---|---|---|----------------------|------------------|--|----------------------|------------------|--|
| | | | | | | | | | | | | | | | | Contractor (gal.) | County (gal.) | | Contractor (gal.) | County (gal.) | |
| 1 | 0.01 | 38,100 | 22.5 | 2,960,490 | 724,538 | 5,814,537 | 996,734 | 141,970 | 1.3 | 0.0 | 2.8 | 61,773 | 14.58 | 10.50 | 31,064 | 42,314 | 36,776 | 0 | 0 | 0 | 0 |
| 2 | 0.00 | 123,200 | 22.7 | 2,960,498 | 724,539 | 5,814,537 | 996,734 | 142,072 | 1.2 | 0.0 | 2.7 | 63,349 | 13.67 | 11.00 | 33,595 | 42,198 | 36,655 | 0 | 0 | 0 | 0 |
| 3 | 0.65 | 207,600 | 23.1 | 2,960,502 | 724,545 | 5,814,537 | 996,734 | 142,186 | 0.7 | 0.0 | 2.5 | 55,764 | 12.42 | 11.50 | 31,350 | 28,111 | 36,434 | 0 | 0 | 0 | 0 |
| 4 | 0.00 | 290,599 | 23.4 | 2,960,507 | 724,550 | 5,814,537 | 996,734 | 142,339 | 0.7 | 0.0 | 2.0 | 0 | 12.58 | 11.50 | 34,837 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 1.75 | 373,100 | 23.0 | 2,960,511 | 724,557 | 5,814,537 | 996,734 | 142,439 | 0.8 | 0.0 | 2.8 | 0 | 14.29 | 11.54 | 34,837 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 1.25 | 455,600 | 22.5 | 2,960,515 | 724,563 | 5,814,537 | 996,734 | 142,538 | 0.8 | 0.0 | 3.5 | 0 | 16.00 | 11.58 | 34,837 | 14,138 | 22,119 | 0 | 0 | 0 | 0 |
| 7 | 1.57 | 541,200 | 23.1 | 2,960,520 | 724,564 | 5,814,537 | 996,735 | 142,703 | 1.1 | 0.0 | 3.5 | 0 | 16.00 | 11.67 | 34,643 | 28,296 | 22,524 | 0 | 0 | 0 | 0 |
| 8 | 1.57 | 628,007 | 23.4 | 2,960,520 | 724,564 | 5,814,537 | 996,705 | 142,904 | 2.2 | 0.0 | 3.5 | 0 | 16.67 | 12.50 | 31,204 | 35,392 | 36,844 | 0 | 0 | 0 | 0 |
| 9 | 2.08 | 709,500 | 23.4 | 2,960,523 | 724,570 | 5,814,537 | 996,185 | 143,195 | 2.3 | 0.0 | 3.4 | 0 | 15.83 | 13.42 | 29,071 | 35,351 | 29,446 | 0 | 0 | 0 | 0 |
| 10 | 0.01 | 789,515 | 23.4 | 2,960,525 | 724,572 | 5,814,537 | 995,926 | 143,224 | 2.3 | 0.0 | 3.4 | 0 | 15.50 | 14.08 | 27,947 | 42,399 | 36,494 | 0 | 0 | 0 | 0 |
| 11 | 0.00 | 846,979 | 24.9 | 2,960,528 | 724,577 | 5,814,537 | 995,926 | 143,516 | 2.3 | 0.0 | 3.4 | 0 | 14.17 | 15.17 | 28,820 | 42,498 | 0 | 0 | 0 | 0 | 0 |
| 12 | 0.00 | 926,690 | 24.3 | 2,960,531 | 724,579 | 5,814,537 | 995,926 | 143,807 | 2.4 | 0.0 | 3.4 | 0 | 15.34 | 15.88 | 28,820 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | 0.01 | 1,006,400 | 23.7 | 2,960,533 | 724,580 | 5,814,537 | 995,926 | 144,097 | 2.5 | 0.0 | 3.4 | 53,555 | 16.50 | 16.58 | 28,820 | 49,526 | 0 | 0 | 0 | 0 | 0 |
| 14 | 0.00 | 1,086,200 | 23.9 | 2,960,538 | 724,587 | 5,814,537 | 995,926 | 144,390 | 2.5 | 0.0 | 2.8 | 61,815 | 16.50 | 16.83 | 26,663 | 49,494 | 29,547 | 0 | 0 | 0 | 0 |
| 15 | 0.00 | 1,163,700 | 24.5 | 2,960,543 | 724,593 | 5,814,537 | 995,926 | 144,683 | 2.2 | 0.0 | 2.9 | 67,813 | 15.42 | 16.00 | 33,857 | 49,374 | 36,717 | 0 | 0 | 0 | 9,579 |
| 16 | 0.17 | 1,240,500 | 24.3 | 2,960,549 | 724,597 | 5,814,537 | 995,926 | 144,976 | 1.7 | 0.0 | 3.5 | 39,050 | 14.42 | 14.83 | 18,353 | 21,201 | 29,298 | 0 | 14,623 | 7,313 | 0 |
| 17 | 0.00 | 1,317,977 | 23.2 | 2,960,553 | 724,598 | 5,814,537 | 995,926 | 145,264 | 1.7 | 0.0 | 3.2 | 76,160 | 14.50 | 14.00 | 22,679 | 42,470 | 36,656 | 0 | 0 | 0 | 0 |
| 18 | 1.07 | 1,399,935 | 24.5 | 2,960,556 | 724,603 | 5,814,537 | 995,926 | 145,272 | 1.5 | 0.0 | 2.4 | 30,232 | 13.50 | 14.58 | 27,556 | 42,442 | 0 | 0 | 0 | 0 | 0 |
| 19 | 0.15 | 1,481,518 | 23.8 | 2,960,560 | 724,607 | 5,814,537 | 995,926 | 145,275 | 1.6 | 0.0 | 2.1 | 0 | 14.59 | 15.50 | 27,556 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 0.00 | 1,563,100 | 23.0 | 2,960,563 | 724,610 | 5,814,537 | 995,926 | 145,277 | 1.6 | 0.0 | 1.7 | 44,038 | 15.67 | 16.42 | 27,556 | 42,451 | 36,784 | 0 | 0 | 0 | 0 |
| 21 | 0.00 | 1,644,200 | 23.3 | 2,960,569 | 724,613 | 5,814,537 | 995,926 | 145,280 | 1.6 | 0.0 | 2.8 | 86,243 | 14.50 | 15.25 | 23,171 | 42,416 | 29,539 | 5,293 | 0 | 0 | 0 |
| 22 | 0.00 | 1,724,300 | 23.7 | 2,960,571 | 724,617 | 5,814,537 | 995,926 | 145,280 | 1.6 | 0.0 | 1.9 | 78,799 | 13.50 | 14.50 | 28,875 | 42,429 | 29,301 | 0 | 0 | 0 | 0 |
| 23 | 0.40 | 1,803,600 | 23.7 | 2,960,574 | 724,622 | 5,814,537 | 995,926 | 145,281 | 1.1 | 0.0 | 1.9 | 0 | 13.00 | 14.25 | 26,899 | 42,330 | 21,998 | 0 | 0 | 0 | 0 |
| 24 | 0.01 | 1,887,757 | 23.6 | 2,960,580 | 724,626 | 5,814,537 | 995,926 | 145,281 | 1.1 | 0.0 | 3.0 | 0 | 12.50 | 13.25 | 19,013 | 35,172 | 36,388 | 0 | 0 | 0 | 0 |
| 25 | 0.00 | 1,975,210 | 23.6 | 2,960,582 | 724,627 | 5,814,537 | 995,926 | 145,281 | 1.2 | 0.0 | 3.4 | 51,768 | 12.42 | 12.50 | 26,027 | 45,366 | 0 | 0 | 0 | 0 | 0 |
| 26 | 0.06 | 2,064,405 | 23.5 | 2,960,587 | 724,629 | 5,814,537 | 995,926 | 145,281 | 1.3 | 0.0 | 3.2 | 63,872 | 13.67 | 12.67 | 26,027 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27 | 0.00 | 2,153,600 | 23.3 | 2,960,592 | 724,631 | 5,814,537 | 995,926 | 145,281 | 1.4 | 0.0 | 2.9 | 75,976 | 14.92 | 12.83 | 26,027 | 35,374 | 36,476 | 0 | 0 | 0 | 0 |
| 28 | 0.00 | 2,243,675 | 23.9 | 2,960,594 | 724,637 | 5,814,537 | 995,926 | 145,281 | 1.0 | 0.0 | 2.6 | 58,079 | 14.33 | 12.75 | 23,645 | 42,394 | 28,704 | 0 | 0 | 0 | 0 |
| 29 | 0.00 | 2,335,266 | 23.3 | 2,960,595 | 724,638 | 5,814,537 | 995,926 | 145,281 | 0.7 | 0.0 | 2.8 | 83,529 | 14.08 | 12.00 | 28,554 | 35,352 | 28,440 | 0 | 0 | 0 | 0 |
| 30 | 0.70 | 2,428,000 | 23.3 | 2,960,601 | 724,639 | 5,814,537 | 995,926 | 145,281 | 0.7 | 0.0 | 2.7 | 45,286 | 13.83 | 10.50 | 30,951 | 42,372 | 42,372 | 0 | 0 | 0 | 0 |
| Totals | 11.46 | | | | | | | | | 0 | | 1,097,101 | | | 853,254 | 970,860 | 679,512 | 5,293 | 14,623 | 7,313 | 9,579 |

projects\balance\2016\06-16bal.xls (DS 7/2/16)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column B, trace is less than 0.01 inches.
5. Columns C, D, F, G, H, I, J, L, N, Q, R-V and W are quantities from flow meters.
6. Columns K and M measured from staff gages in each pond.

| Type of Cover | Phases I-VI acres | Sections 7-8 acres | Section 9 acres |
|---------------|----------------------|-----------------------|--------------------|
| Open | 5 | 0 | 0 |
| Intermediate | 134.4 | 19.3 | 15 |
| Final | 23 | 0 | 0 |

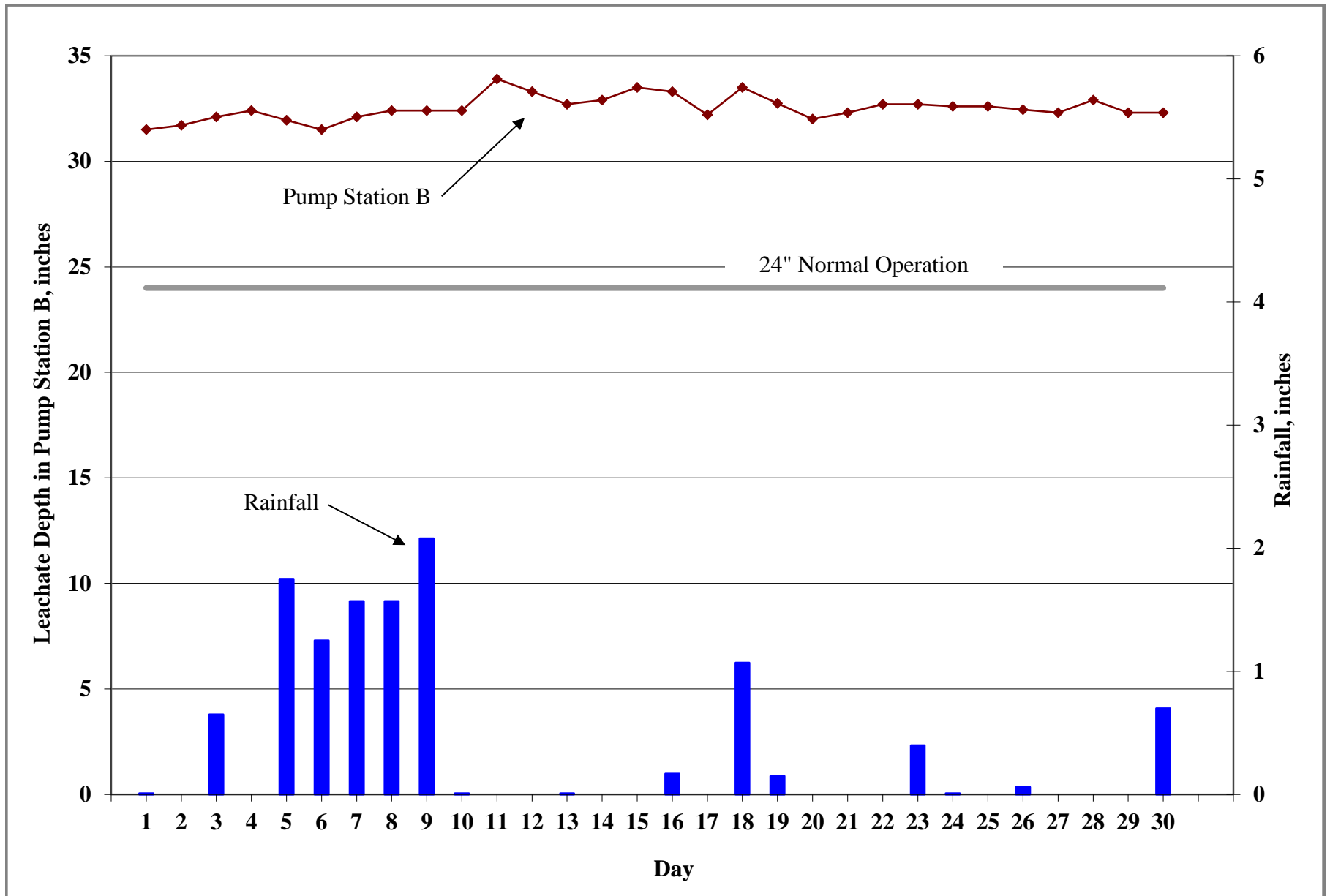


Figure 1. Leachate Levels in Pump Station B and Rainfall for June 2016.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2016**

| Month | Rainfall (in.) | Leachate Arriving at LTRF | | | | Leachate Leaving LTRF | | | Effluent Disposal | | | Inflow / Outflow For LTRF | | |
|-----------|-------------------|--|--|--|--|---|---|--|---------------------------------------|---|----------------------------------|--------------------------------------|---|--|
| | | Condensate from LFG System (gal.) | Leachate from Section 9 Pumped to LTRF (gal.) | Leachate from Section 7-8 Pumped to LTRF (gal.) | Leachate from Phases I-VI Pumped to LTRF (gal.) | Total Leachate Hauled from LTRF (gal.) | Leachate Dust Control (Sprayed) (gal.) | Leachate Treated at LTRF (gal.) | Total Effluent Hauled (gal.) | Effluent Dust Control (Sprayed) (gal.) | Effluent Irrigation (gal.) | Total Inflow to LTRF (gal.) | Total Outflow from LTRF (gal.) | Change in Storage ³ (gal.) |
| January | 7.36 | 13,493 | 720 | 155,274 | 2,520,135 | 2,382,887 | 0 | 183,500 | 0 | 0 | 36,630 | 2,689,622 | 2,566,387 | 123,235 |
| February | 1.61 | 9,430 | 511 | 218,755 | 2,493,661 | 1,353,187 | 0 | 1,061,000 | 0 | 0 | 353,350 | 2,722,357 | 2,414,187 | 308,170 |
| March | 2.31 | 8,864 | 410 | 120,310 | 2,157,400 | 1,738,430 | 27,118 | 360,800 | 0 | 0 | 443,343 | 2,286,984 | 2,126,348 | 160,636 |
| April | 2.50 | 5,771 | 195 | 102,931 | 2,268,165 | 1,607,452 | 0 | 743,800 | 0 | 0 | 649,650 | 2,377,062 | 2,351,252 | 25,810 |
| May | 8.03 | 12,092 | 228 | 53,694 | 2,719,435 | 1,652,011 | 0 | 948,800 | 0 | 0 | 771,435 | 2,785,449 | 2,600,811 | 184,638 |
| June | 11.46 | 13,747 | 236 | 1 | 2,472,400 | 1,650,372 | 5,293 | 853,400 | 21,936 | 9,579 | 1,097,101 | 2,486,384 | 2,509,065 | -22,681 |
| July | | | | | | | | | | | | | | |
| August | | | | | | | | | | | | | | |
| September | | | | | | | | | | | | | | |
| October | | | | | | | | | | | | | | |
| November | | | | | | | | | | | | | | |
| December | | | | | | | | | | | | | | |
| YTD Total | 33.27 | 63,397 | 2,300 | 650,965 | 14,631,196 | 10,384,339 | 32,411 | 4,151,300 | 21,936 | 9,579 | 3,351,509 | 15,347,858 | 14,568,050 | 779,808 |

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.